



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/070,125

03/01/2002

Yasuhiko Kosugi

Q68763

9677

7590

10/17/2005

Sughrue Mion  
2100 Pennsylvania Avenue NW  
Washington, DC 20037-3202

EXAMINER

NGUYEN, LAM S

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/070,125

Applicant(s)

KOSUGI, YASUHIKO

Examiner

LAM S. NGUYEN

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11, 12, 14-21 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 12, 14-21 and 23-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 11-12, 14-17, 20-21, 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arthur et al. (US 5049898) in view of Walker (US 6312106).

Arthur et al. discloses an ink jet recording apparatus comprising:

**Referring to claims 11, 20:**

a recording head that jets ink drops to record (*FIG. 1, 3, element 24*),

a carriage (*FIG. 2, element 34*) adapted to be loaded with a plurality of detachable ink containers (*FIG. 2, elements 12*) each of which stores ink to be fed to said recording head (*FIG. 2, element 16*), wherein said carriage reciprocally moves with said recording head (*FIG. 1-2, element 24*), and

a communication unit including a single magnetic linking transformer (*FIG. 2, element 44*) for non-contact communicating with storage elements (*FIG. 1-2, element 12*) which are provided with said ink containers, respectively (*FIG. 2, element 14*), said communication unit being able to communicate with said storage elements provided with said ink containers when said ink containers are loaded on said carriage (*FIG. 2*),

wherein in a state that one ink container of said ink containers loaded on said carriage (*FIG 2: The middle container 12 is loaded on the carriage 24, for example*), said communication

Art Unit: 2853

unit is able to communicate with one storage element of said storage elements for said one ink container only when said storage element for said ink container is loaded on said carriage only when said storage element for said storage element is brought close to said communication unit (*FIG. 2: The communication is linked between the communication unit 44 and the storage element 12 of the middle ink container 12 since its storage element 12 is brought close to the communication unit 44*), said communication between said communication unit and said one storage element being enabled at least during a portion of said reciprocal movement (*FIG. 2, column 3, lines 39-47*).

Arthur et al. does not disclose wherein the single linking means is an antenna, wherein in a state that said one ink container is not loaded on said carriage, said communication unit is able to communicate with said one storage element only when said one storage element is brought close to said communication unit to such a distance that said one storage element is able to communicate with said communication unit in the state that said one ink container is loaded on said carriage (**Referring to claims 11, 20**), and wherein power is supplied to said storage element for said ink container in a non-contact state (**Referring to claims 14, 23**).

Walker discloses a method for transferring information between ink containers and a printing device through a radio system having antennas for sending and receiving information (*FIG. 4, elements 64, 70*). The transferring information is enabled even though the ink container is not loaded on a carriage, but is brought close to a communication unit of the printing device to such a distance as when the ink container is loaded on a carriage (*FIG. 5 and column 8, line 1-6: When the linking device 38 is positioned in the capture region 74 with a proper orientation as same as the one when the linking device 38 is loaded in the carriage (FIG. 6), a proper*

Art Unit: 2853

*information link is established between the memory 56 in the ink head 16 and the printer 12), wherein power is supplied to a storage element in the ink container in a non-contact state (column 7, line 20-24).*

Therefore, it would have been obvious for one having ordinary skill in the art at the time invention was made to modify the printing apparatus disclosed by Arthur et al. by using the radio linking system instead of the magnetic linking transformer as disclosed by Walker. The motivation for doing so would have been to enable the data transmission when the ink container is brought into the capture region but not necessity to be loaded on the carriage as taught by Walker (*column 8, lines 1-6*).

**Arthur also discloses the following claimed invention:**

**Referring to claims 12, 21:** wherein said communication unit communicates with said storage element for the ink container in a non-contact state (*FIG. 3, elements 14, 44*).

**Referring to claims 15, 24:** wherein information within said storage element for said ink container can be rewritten and stored in said storage element at least via said communication unit (*column 3, lines 58-60: The memory 14 is updated periodically each time it passes the read/write head 44*).

**Referring to claims 16-17, 25-26:** further comprising a storage element for said recording head installed in said recording head for storing information concerning said recording head, wherein said communication unit communicates also with said storage element for said recording head in a non-contact state (*column 4, lines 18-20: The memory may also contain data relating to the alignment of the orifice plate*).

Art Unit: 2853

2. Claims 18-19, 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arthur et al. (US 5049898) in view of Walker (US 6312106), as applied to claims 11 and 20, and further in view of Siwinski et al. (US 2002/0015066 A1).

Arthur et al., as modified, discloses the claimed invention as discussed above except a storage element for a recording medium installed in a package of storage medium to be recorded by said ink recoding, wherein said communication unit communicates also with said storage element for said recording medium in a non-contact state.

Siwinski et al. discloses a printer comprising a storage element (*FIG. 2, element 54h*) for a recording medium (*FIG. 2, element 24*) installed in a package of storage medium to be recorded by said ink recoding, wherein said communication unit communicates also with said storage element for said recording medium in a non-contact state (*Abstract: RF frequency electromagnetic field is used for communication*).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the printing system disclosed by Arthur et al., as modified, such that including the storage element in the recording medium unit wherein the storage element communicate to the communication unit in a non-contact state as disclosed by Siwinski et al. The motivation of doing so would have been to provide a printer that is “adapted to sense data uniquely associated with a consumable loaded into the printer” as taught by Siwinski et al. (*paragraph [0013]*).

### ***Response to Arguments***

Applicant's arguments filed 08/11/2005 have been fully considered but they are not persuasive.

The applicants argued that the communication system in Walker actually teaches away from a communication unit being able to communicate with storage elements provided on ink containers when said ink containers are not loaded on the carriage. The examiner does not agree with the applicant's assertion. As shown in FIG. 5 and column 8, lines 1-6, Walker teaches that the information is reliably transferred between the linking devices (38, 42) when the linking device 38 is positioned within the capture region with the proper orientation to the linking device 42. Based on this general teaching, as a result, Walker's disclosure reads on the claimed communication since as long as the linking device 38 (storage element) is brought closely so it is located within the capture region (and in the proper orientation), the communication is linked no matter if the linking device 38 is loaded on a carriage or the docking station. The fact that Walker's suggestion of mounting the linking device 38 on the docking station to optimize the information exchange does not mean that the linking device 38 has to be loaded on the docking station in order to allow the communication to occur.

In addition, the applicant argued that since Walker's linking devices are prevented from relative movement by the docking station, the proposed modification would render the prior art invention inoperable. Again, as discussed above, Walker's general teaching does not mean that the linking devices have to be in fixed positions. In contrast, as long as the linking device 38 moves within the capture region and in the proper orientation, the communication between the linking devices is allowed. Therefore, the proposed modification would render the prior art invention operable since the movement of the linking device 38 (storage element) would allow the linking device 42 (the communication unit) to be able to communicate with any one of a plurality

Art Unit: 2853

of linking devices (storage elements) that moves to be located in the capture region and faced off to the communication unit.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S. NGUYEN whose telephone number is (571)272-2151.

The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications



Art Unit: 2853

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN

09/28/2005



HAI PHAM  
PRIMARY EXAMINER